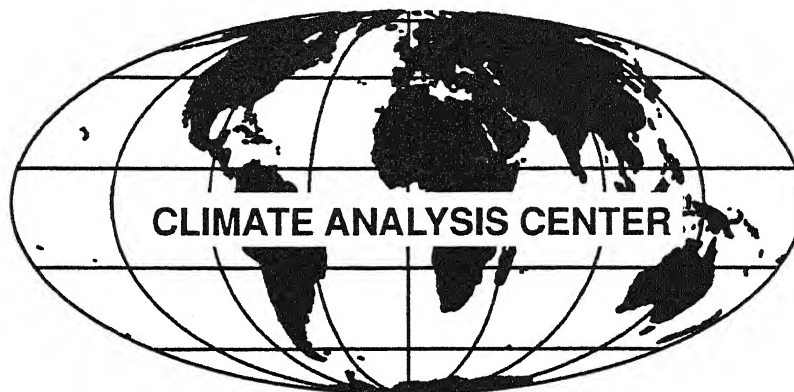


**CONTAINS:**

**JANUARY 1994  
UNITED  
STATES  
CLIMATE  
SUMMARY**

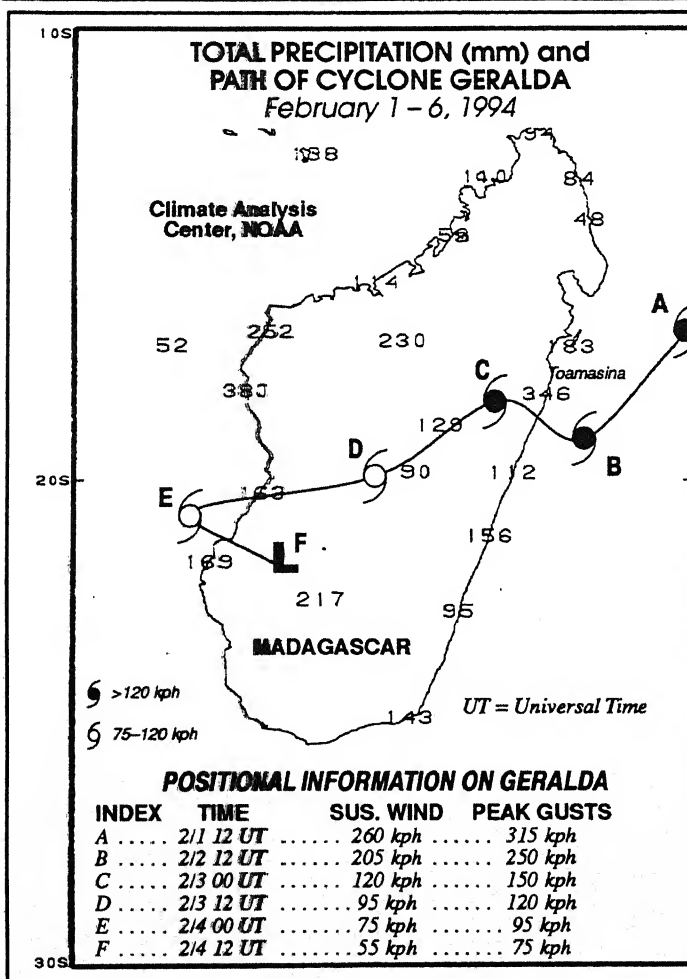


# WEEKLY CLIMATE BULLETIN

No. 94/06

Washington, DC

February 9, 1994



**POWERFUL, SLOWLY-MOVING CYCLONE GERALDA DEVASTATES PORTIONS OF MADAGASCAR.** During the first few days of February, Cyclone Geralda, packing wind gusts of up to 315 kph (195 mph) prior to landfall, slowly tracked across the island nation, taking more than three dozen lives and leaving over half a million individuals homeless, according to press reports. Rainfall totals of 100 - 380 mm were common throughout most of the country, with daily totals topping 200 mm at a few locations close to the path of the cyclone's center. National officials have described Geralda as the "Cyclone of the Century" because of the extreme devastation wrought by the storm, particularly along the eastern coast where the cyclone first made landfall. Press reports indicate that over 70% of the nation's rice fields were destroyed by Geralda, as well as 95% of the main commercial port of Toamasina in eastern Madagascar. Farther inland, torrential downpours forced numerous rivers out of their banks, causing widespread flooding and damaging many crops.



**UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL WEATHER SERVICE-NATIONAL METEOROLOGICAL CENTER  
CLIMATE ANALYSIS CENTER**



# WEEKLY CLIMATE BULLETIN

This Bulletin is issued weekly by the Climate Analysis Center and is designed to indicate, in a brief concise format, current surface climatic conditions in the United States and around the world. The Bulletin contains:

- Highlights of major climatic events and anomalies.
- U.S. climatic conditions for the previous week.
- U.S. apparent temperatures (summer) or wind chill (winter).
- Global two-week temperature anomalies.
- Global four-week precipitation anomalies.
- Global monthly temperature and precipitation anomalies.
- Global three-month precipitation anomalies (once a month).
- Global three-month temperature anomalies (once a month).
- Global twelve-month precipitation anomalies (every three months).
- Global twelve-month temperature anomalies (every three months).
- Special climate summaries, explanations, etc. (as appropriate).

Most analyses contained in this Bulletin are based on preliminary, unchecked data received at the Climate Analysis Center via the Global Telecommunications System. Similar analyses based on final, checked data are likely to differ to some extent from those presented here.

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# GLOBAL CLIMATE HIGHLIGHTS

## MAJOR CLIMATIC EVENTS AND ANOMALIES AS OF FEBRUARY 5, 1994

### 1. Western United States:

#### STILL VERY DRY, BUT MILD CONDITIONS END.

Temperatures returned to near normal as unusually mild weather ended [WARM – Ended at 4 weeks]. Little or no precipitation, however, was again reported across the region as six-week moisture deficits remained near 180 mm in western sections of British Columbia and Washington [DRY – 7 weeks].

### 2. East-Central North America:

#### COLD AIR REMAINS ENTRENCHED.

Temperatures averaged as much as 10°C below normal in southeastern Canada and 9°C below normal in Iowa and Minnesota, with lows plunging to -37°C at International Falls, MN [COLD – 7 weeks].

### 3. South America:

#### RAINS BRING MORE RELIEF.

Up to 170 mm of rain drenched most of northeastern Argentina, southern Paraguay, Uruguay, and extreme southern Brazil, resulting in the elimination of widespread short-term moisture deficits, although pockets of dryness persisted [DRY – Ended at 6 weeks]. Farther northwest, press reports indicated that flash flooding swept through parts of Colombia and Peru, claiming dozens of lives and forcing thousands of individuals to flee their homes [Episodic Events].

### 4. Europe:

#### HEAVY PRECIPITATION PERSISTS.

Up to 100 mm of precipitation fell on some locations in France and Spain while only 10 to 30 mm were measured farther north and east. Up to 50 mm of precipitation, accompanied by wind gusts to 120 kph, lashed Ireland and the United Kingdom, snarling land, sea, and air travel, according to press reports [WET – 10 weeks].

### 5. Western Africa:

#### UNUSUALLY COOL CONDITIONS CONTINUE.

Temperatures averaged as much as 3°C below normal as abnormally cool air remained entrenched throughout the region [COOL – 3 weeks].

### 6. Southeastern Africa:

#### WET WEATHER SHIFTS NORTHWARD.

Isolated showers dumped up to 210 mm of rain on northeastern South Africa while totals ranged from 10 to 40 mm further south. Six-week moisture surpluses ranged from 100 to 260 mm at a few locations. According to press reports, northern Natal experienced the worst flooding in 78 years following several successive weeks of heavy rain [WET – 9 weeks].

### 7. Madagascar:

#### CYCLONE GERALDA BATTERS ISLAND.

As much as 400 mm of rain and wind gusts reaching 250 kph lashed Madagascar as Geralda destroyed numerous buildings, damaged crops, and swept away property, according to press reports (see front cover) [Episodic Events].

### 8. Indonesia:

#### MORE HEAVY RAINS.

Strong thunderstorms drenched Sumatra with up to 180 mm of rain while Java received as much as 140 mm. Six-week moisture surpluses reached 200 mm on Sumatra, 240 mm on Celebes, and 260 mm on Java (page 10) [WET – 11 weeks].

### 9. Eastern Australia:

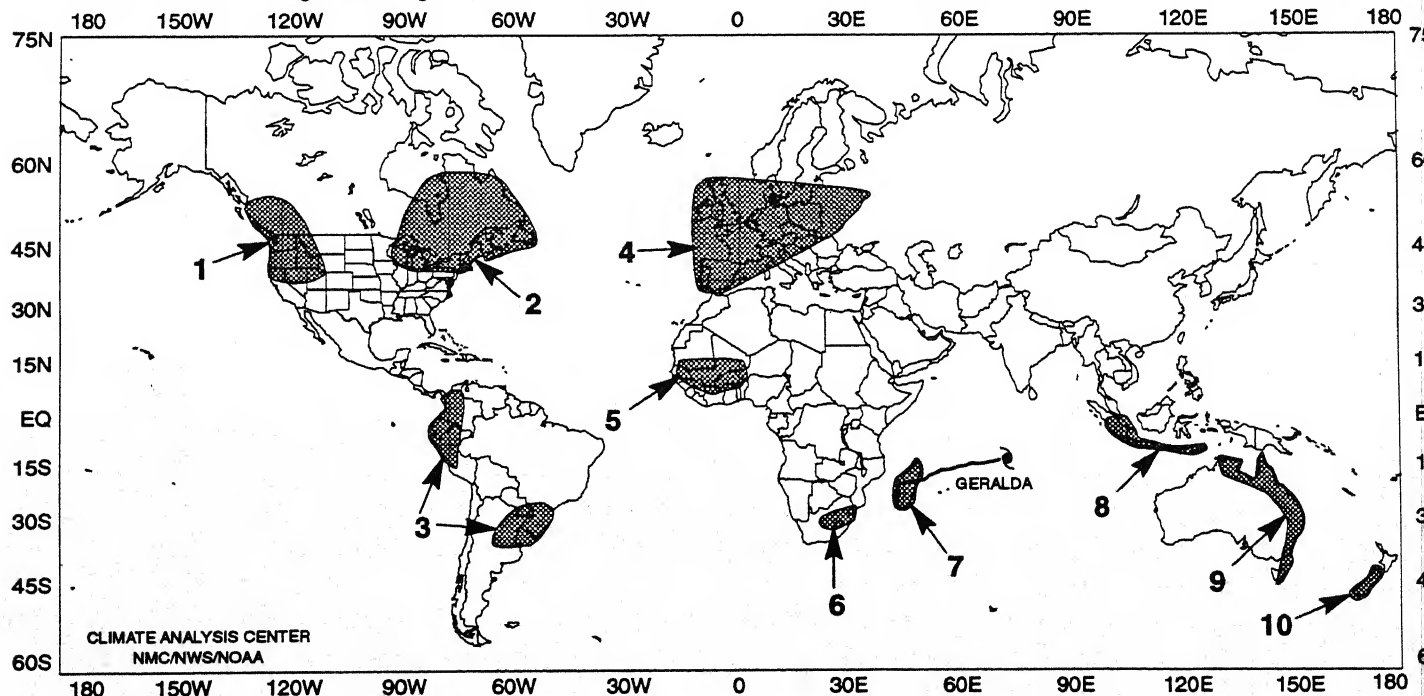
#### TEMPERATURES MODERATE WHILE RAINS BRING RELIEF.

Near normal temperatures prevailed across the region [WARM – Ended at 6 weeks]. Heavy showers associated with the remnants of Tropical Storm Sadie dumped 100 to 430 mm of rain on the southern half of the Cape York Peninsula and on portions of central and east-central Queensland; however, six-week moisture shortages of 150 to 220 mm remained across large sections of the region [DRY – 8 weeks].

### 10. Southern New Zealand:

#### DRIER CONDITIONS PREVAIL.

Only 10 to 30 mm of rain fell on South Island, providing relief from recent wet weather and flooding [WET – Ended at 7 weeks].



#### EXPLANATION

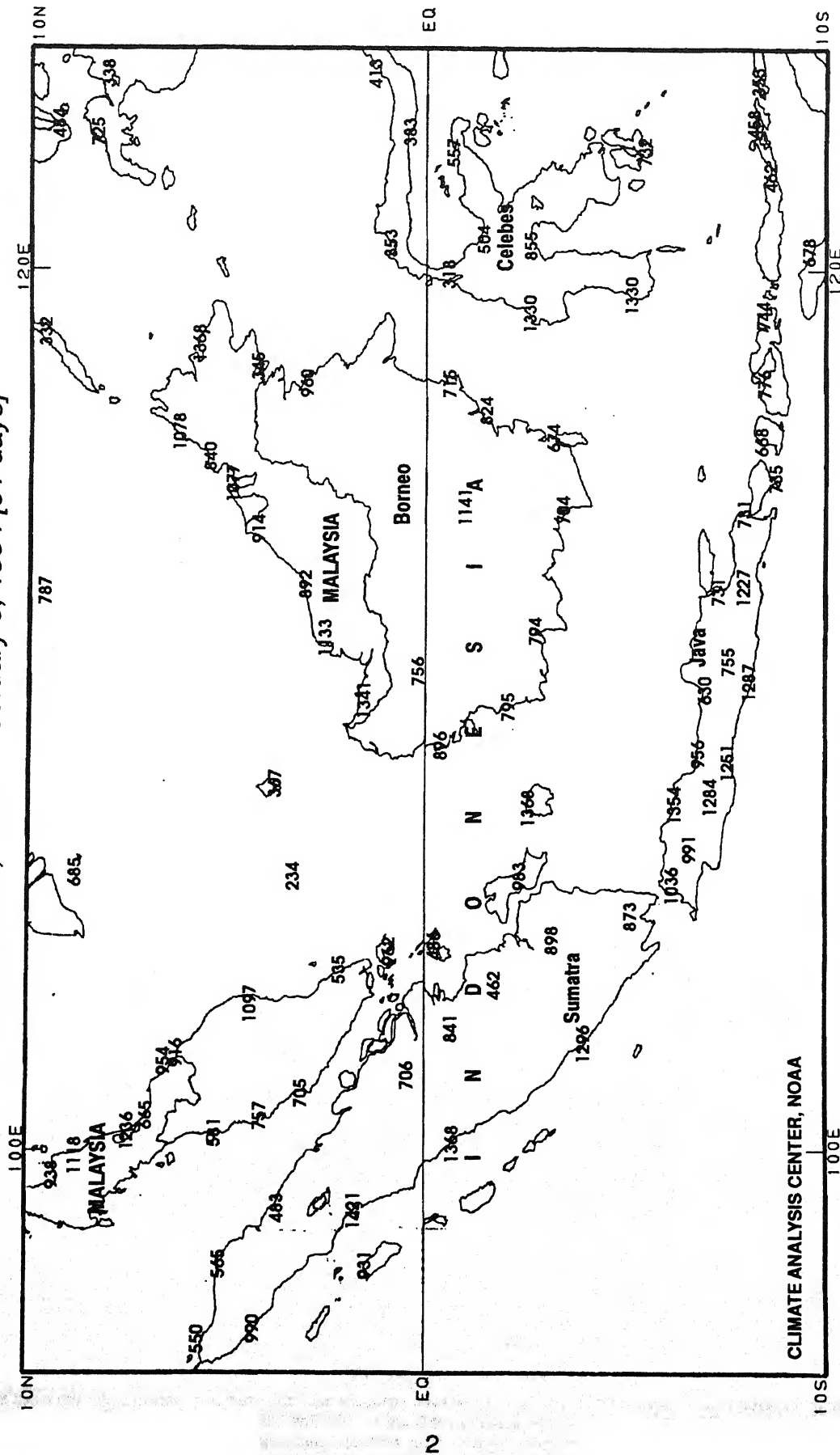
TEXT: Approximate duration of anomalies is in brackets. Precipitation amounts and temperature departures are this week's values.

MAP: Approximate locations of major anomalies and episodic events are shown. See other maps in this Bulletin for current two week temperature anomalies, four week precipitation anomalies, long-term anomalies, and other details.

# GLOBAL CLIMATE HIGHLIGHTS FEATURE

## TOTAL PRECIPITATION (MM)

November 7, 1993 – February 5, 1994 [91 days]



CLIMATE ANALYSIS CENTER, NOAA

**THREE MONTHS WITH SPORADIC HEAVY RAINS AND FLOODING AFFLICT MUCH OF INDONESIA AND NEARBY LOCALES.** Since early November, surplus rainfall has been measured across most of Indonesia and southern Malaysia, with totals of 1000 – 1400 mm reported on the southern half of Sumatra, much of Java, southwestern Celebes, central and northeastern portions of Borneo, and west-central Malaysia. These amounts correlate to surpluses of 200 – 400 mm in some areas, particularly across Sumatra and Java. Much of this rain fell from convective complexes (which provide large amounts of moisture in short periods of time), generating periodic flooding, particularly in Sumatra and Java. Press reports indicate that some of the flooding in Java may have been the worst in a decade.

# UNITED STATES WEEKLY CLIMATE HIGHLIGHTS

*FOR THE WEEK OF JANUARY 30 – FEBRUARY 5, 1994*

The dominant weather feature for the week was a broad upper level trough of low pressure over the central and eastern United States that brought abnormally cool conditions to much of the nation. Arctic air plunged into the northern Plains, upper Mississippi Valley, Great Lakes, and Northeast, sending temperatures as low as  $-35^{\circ}\text{F}$ . Readings dropped below freezing across the entire nation, except for the immediate middle and southern Pacific Coast and the extreme southern tier of the country. In sharp contrast, unusually mild conditions continued to prevail over Alaska, with temperatures averaging  $10^{\circ}\text{F}$  to  $36^{\circ}\text{F}$  above normal (except for the southeastern panhandle). Generally light precipitation was recorded over much the nation, but at week's end, showers and thunderstorms developed south of a cold front and brought moderate to heavy rain to much of the lower Mississippi Valley and the Southeast.

The week commenced with upper level weather systems spreading light snow from the southern Rockies into the southern Plains, from the northern Rockies into the northern Plains, and across the Ohio Valley. Up to nine inches of snow accumulated in the southern High Plains while as much as a foot buried the Black Hills of South Dakota. Lesser amounts of snow fell over the Ohio Valley, where flooding ebbed along the Ohio River and its upper tributaries. Elsewhere, showers and thunderstorms were scattered across the southern Atlantic Coast states, with locally heavy amounts drenching portions of northern and central Florida. By Tuesday, a frontal system sweeping southeastward spread snow across the northern Rockies and northern Plains. Precipitation was scattered along the northern and central Appalachians and across the Gulf Coast while light showers fell over southern Florida. As cold air plunged southward, rare snow flurries were reported at Houston, TX and over a dozen stations reported daily record low temperatures from the northern Plains eastward to the northern and central Appalachians from Sunday to Tuesday. In contrast, abnormally warm air persisted over Alaska, where Nome established a new daily record high of  $38^{\circ}\text{F}$ .

At mid-week, cold and dry air prevailed over much of the nation, with precipitation limited to

scattered snow from the northern Plains into the Midwest. During the latter part of the week, the aforementioned cold frontal system dissipated while the northern portion of a second front raced eastward into the Atlantic. Farther west, a Pacific Ocean storm soaked southern California with locally heavy rain while a second storm blanketed the higher elevations of the central and southern Rockies with snow. At week's end, rain was widespread south of the cold front from the lower Mississippi Valley eastward to the middle and southern Atlantic Coast while cold and dry conditions continued to dominate much of the remainder of the nation.

According to the River Forecast Centers, the greatest weekly precipitation totals (over two inches) fell on central Mississippi, central Alabama, and southeastern Florida. In addition, totals exceeded two inches at scattered locations along the south-central coast of Alaska, the Big Island of Hawaii, and the remainder of the Southeast. Light to moderate totals were measured in much of the remainders of Alaska, Hawaii, and the contiguous United States. Little or no precipitation was reported in most of the Pacific Northwest, northern California, the Great Basin, northeastern Alaska, and portions of the northern and central Plains and upper and middle Mississippi Valley.

Above normal temperatures in the contiguous United States were limited to southeastern Florida. In Alaska, abnormally mild weather again prevailed, with weekly departures reaching  $+36^{\circ}\text{F}$  at McGrath. Temperatures averaged near to slightly above normal in western and central Hawaii.

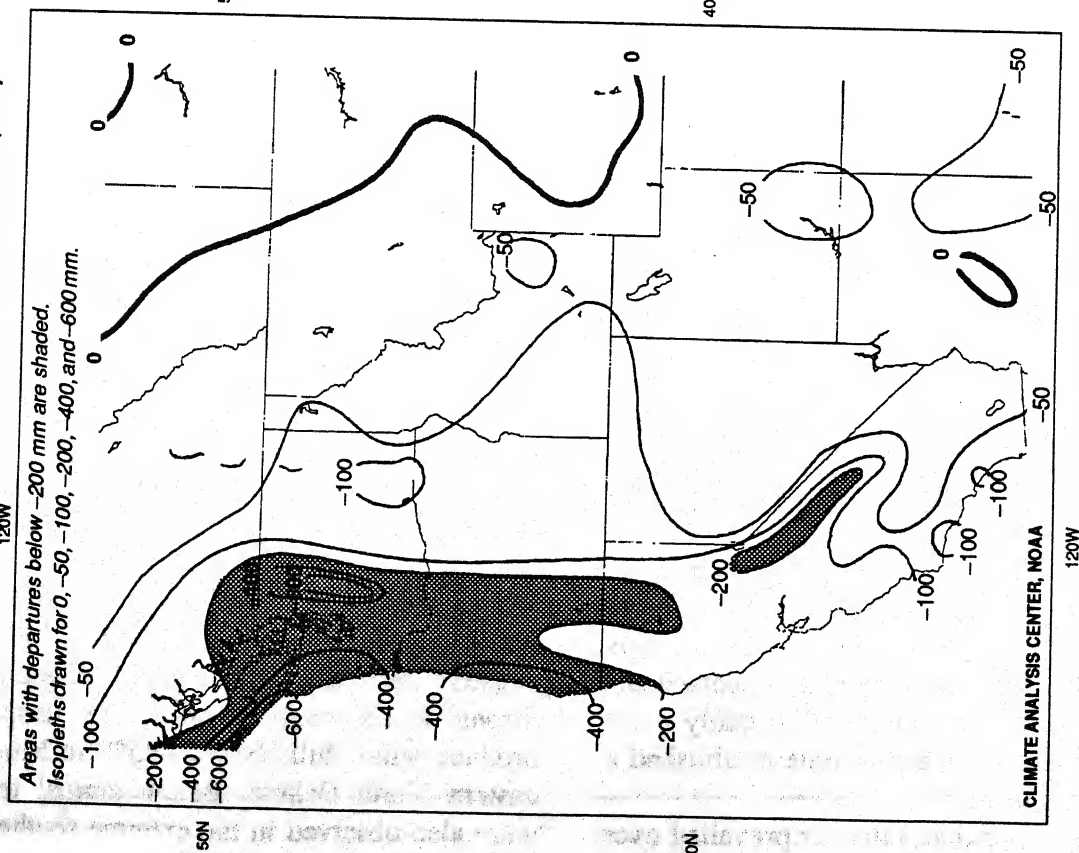
Unseasonably cold conditions dominated the country, with temperatures averaging  $12^{\circ}\text{F}$  to  $16^{\circ}\text{F}$  below normal in portions of the central Rockies, the central High Plains, and from the middle Missouri Valley to the upper Great Lakes, with the largest negative departures in the upper Mississippi Valley. Strong winds combined with low temperatures to produce wind chills below  $-45^{\circ}\text{F}$  in Minnesota and eastern North Dakota. Below normal temperatures were also observed in the extreme southern Alaskan panhandle and on the Island of Hawaii.



# NORTH AMERICAN CLIMATE HIGHLIGHTS

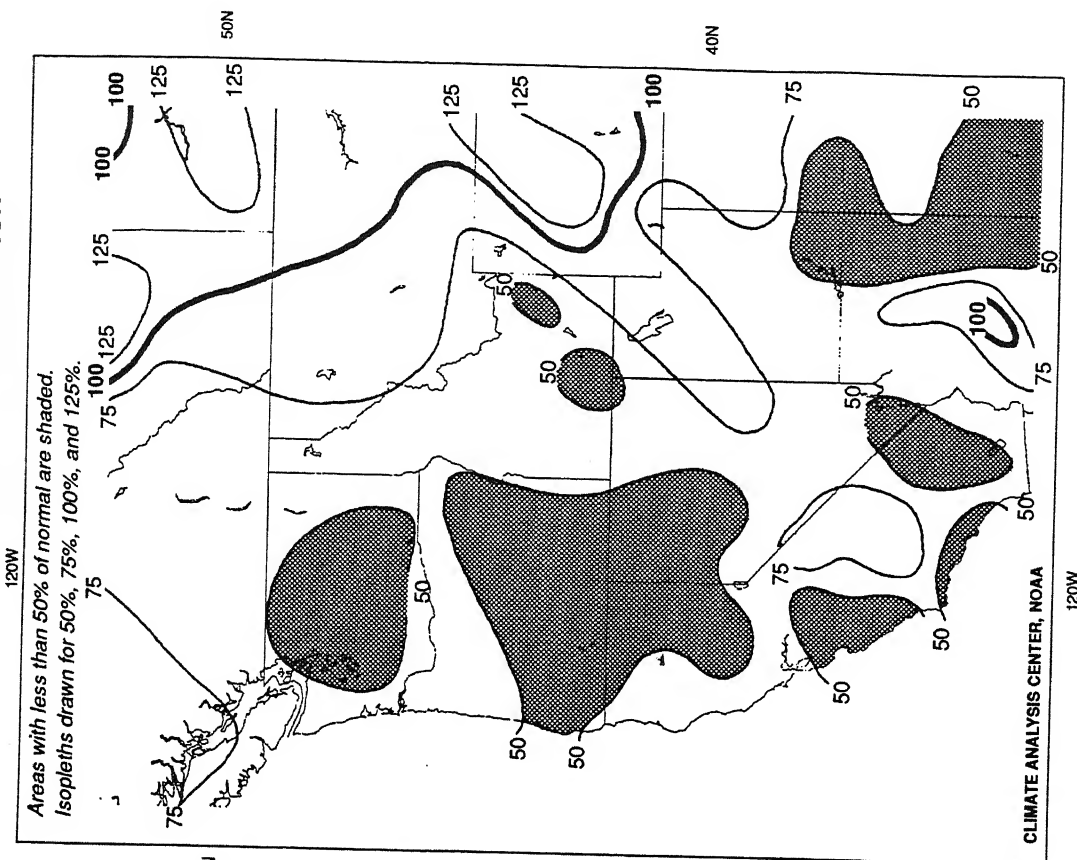
OCTOBER 1, 1993 – FEBRUARY 5, 1994

## DEPARTURE FROM NORMAL PRECIPITATION (mm)



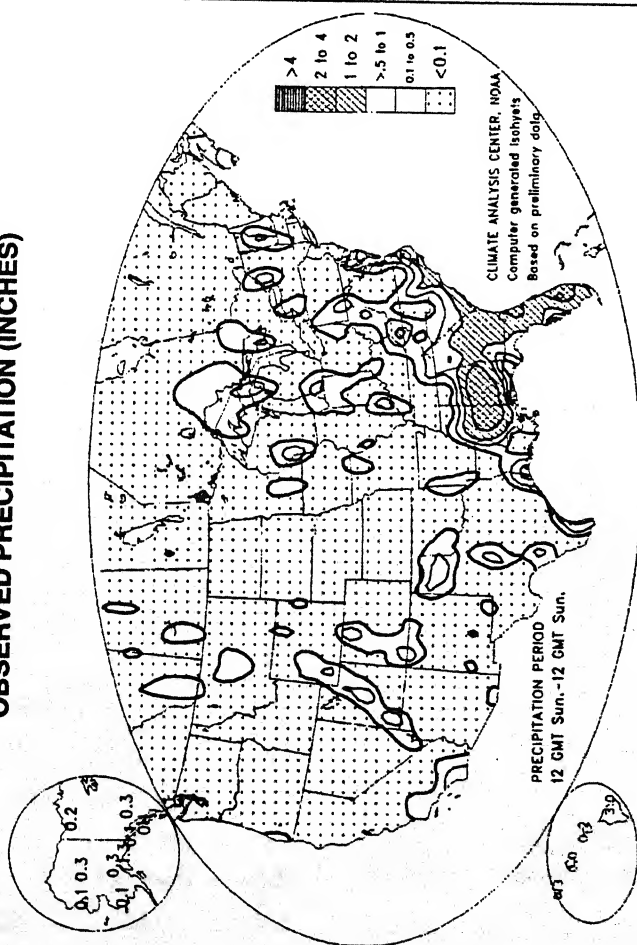
**PROLONGED DRY CONDITIONS INTERRUPTED BY RECENT HEAVY RAINS.** During the past four months, significant moisture deficits (greater than 100 mm) accumulated through much of the Far West, with shortfalls exceeding 400 mm along the coast of Oregon, Washington, and Vancouver Island and in the Cascades of Washington (left). Through February 5, large areas of Washington, Oregon, and California have received less than half of normal precipitation since their water year began on October 1 (right). In addition, totals were less than 50% of normal in parts of southern Idaho, eastern Arizona, and the Four-Corners area. On February 6<sup>th</sup> and 7<sup>th</sup>, however, up to 65 mm precipitation dampened much of California, improving snowpacks but triggering rock and mudslides in fire-denuded areas in southern sections of the state.

## PERCENT OF NORMAL PRECIPITATION

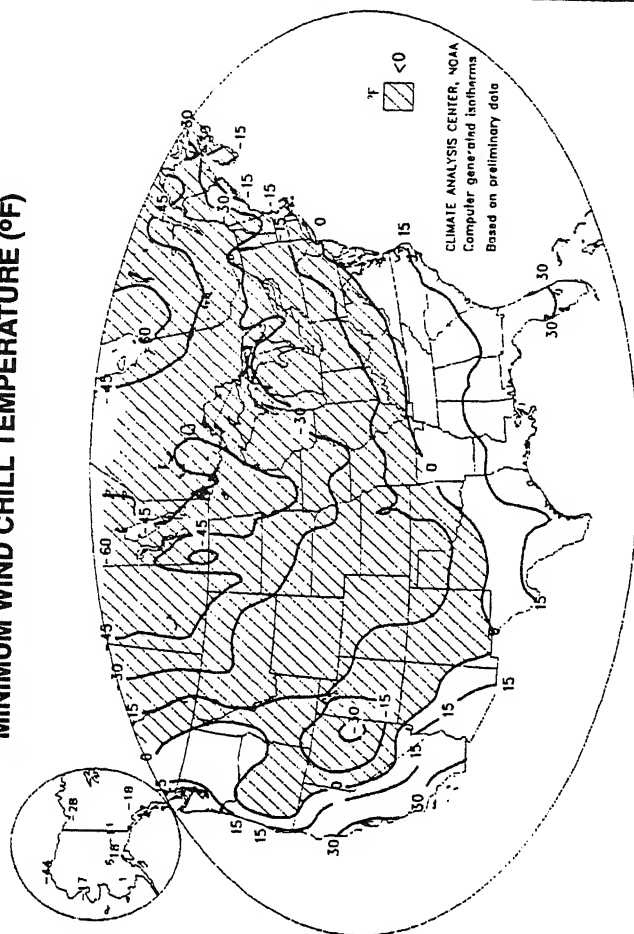


# UNITED STATES WEEKLY CLIMATE CONDITIONS (January 30 – February 5, 1994)

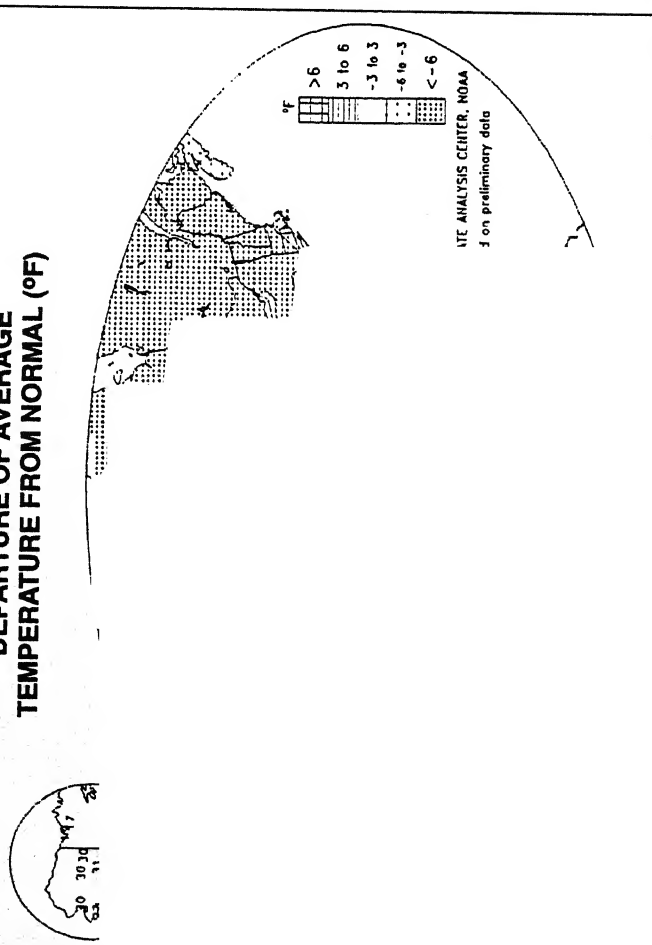
OBSERVED PRECIPITATION (INCHES)



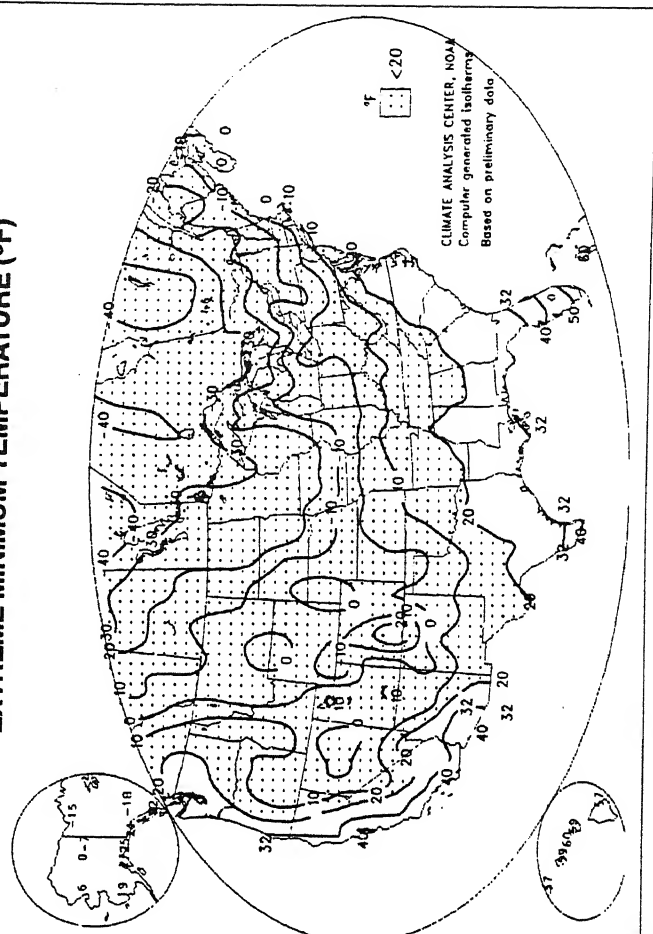
MINIMUM WIND CHILL TEMPERATURE (°F)



DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)

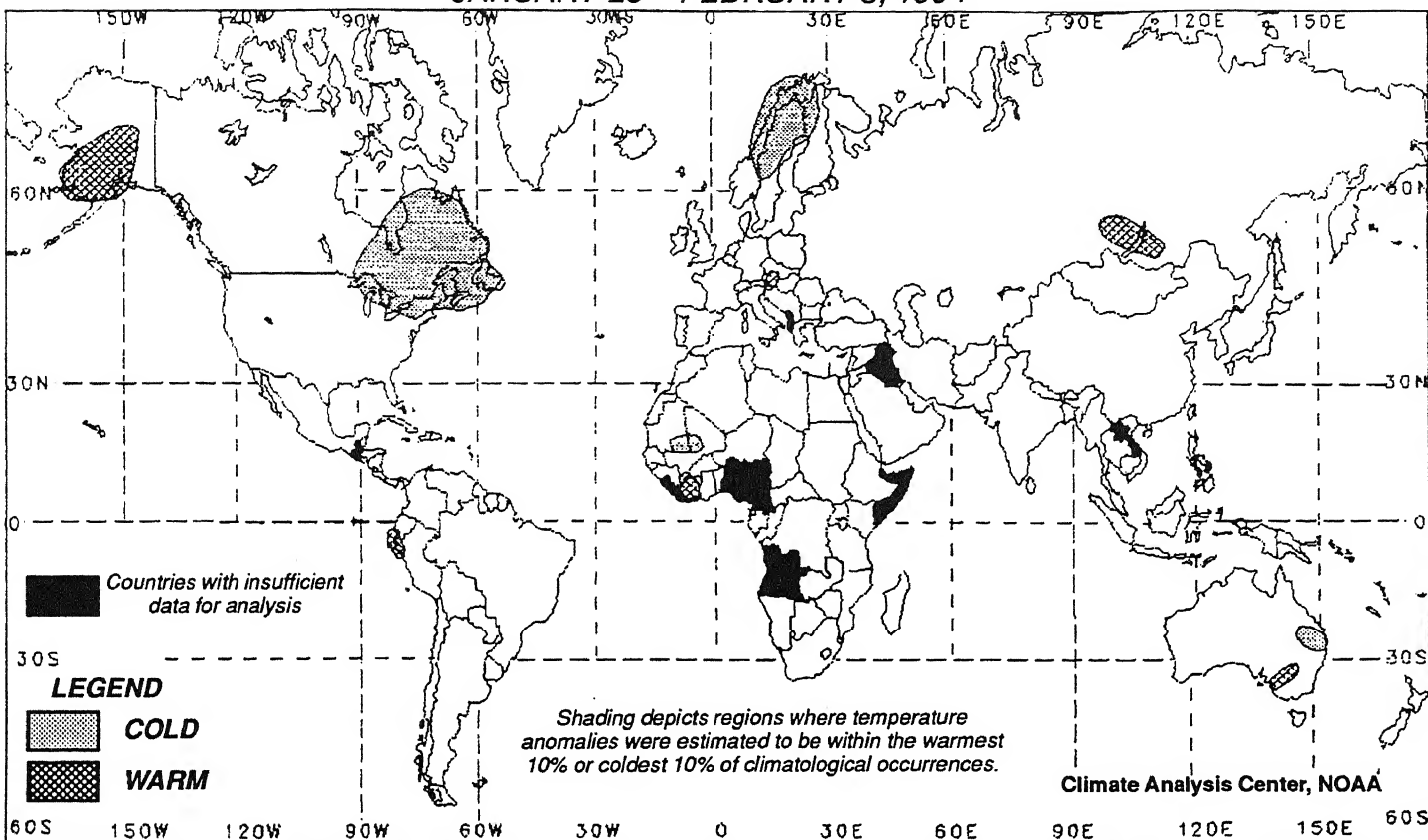


EXTREME MINIMUM TEMPERATURE (°F)



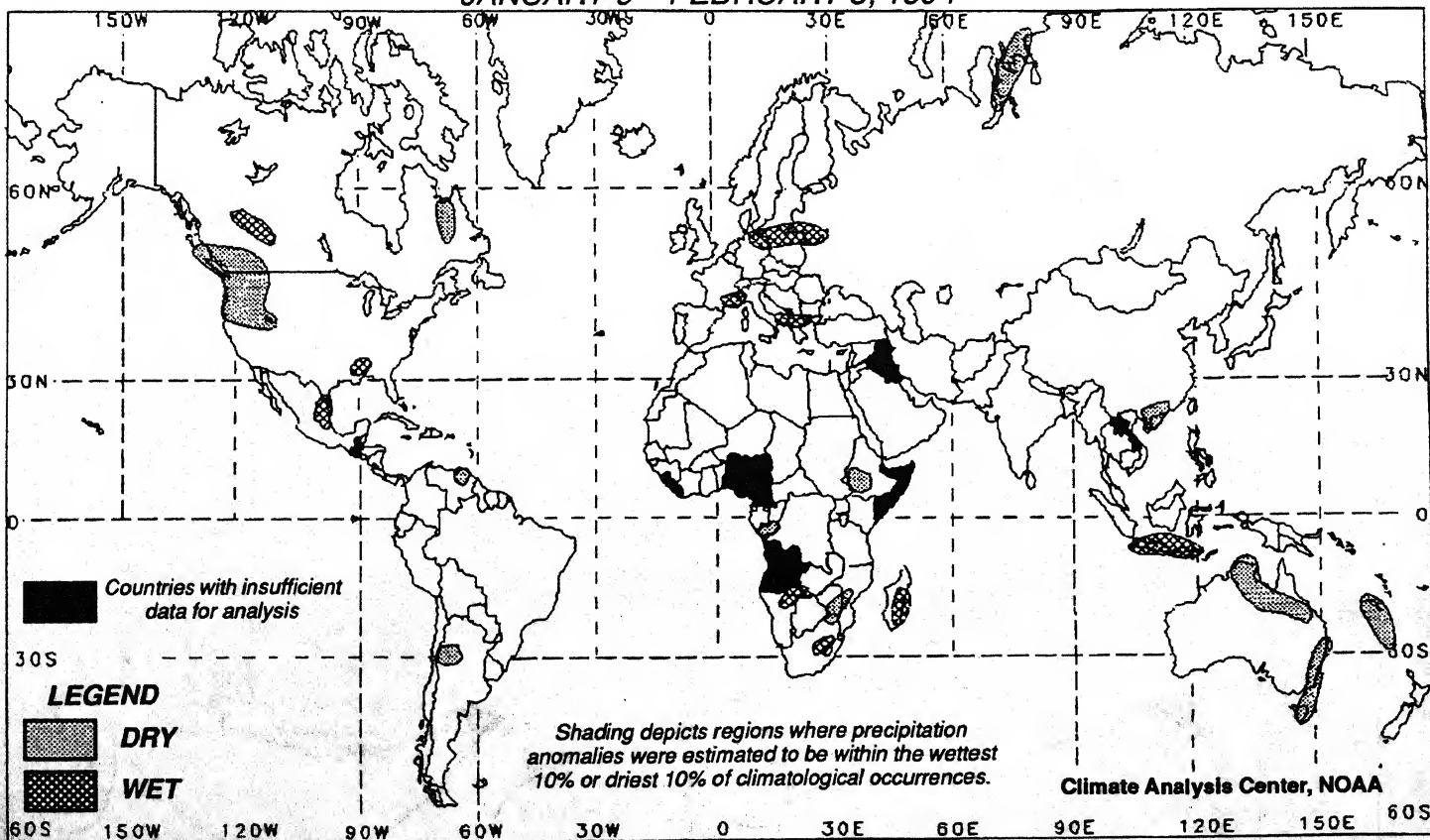
## TWO-WEEK GLOBAL TEMPERATURE ANOMALIES

JANUARY 23 – FEBRUARY 5, 1994



## FOUR-WEEK GLOBAL PRECIPITATION ANOMALIES

JANUARY 9 – FEBRUARY 5, 1994





# UNITED STATES MONTHLY CLIMATE SUMMARY

## JANUARY 1994

During the first week of January, Arctic air covered the central and eastern states. The year's first major winter storms battered areas from the southern Appalachians to the lower Great Lakes and northern New England early in the week and from the Midwest to the northern and middle Atlantic Coast later in the week. High wind, heavy snow, sleet, and freezing rain delayed millions of commuters, closed schools and airports, and created treacherous driving conditions throughout the aforementioned areas. Some locations received two to three feet of snow, and deep drifts forced authorities to close of Interstate 79 near Pittsburgh, PA and Interstates 40 and 77 in western North Carolina. Heavy snow, ice, and wind downed power lines in West Virginia and on Long Island while heavy surf along the New Jersey Coast eroded beaches in Cape May and Monmouth Counties. A subsequent storm closed Chicago's airports, dumped up to eight inches of snow on parts of Wisconsin and northern Illinois, and generated gusty winds that helped push wind chills down to  $-60^{\circ}\text{F}$  in North Dakota. As this second system moved eastward, heavy snow, strong winds, and freezing rain moved into the northern and middle Atlantic Seaboard, closing Boston's Logan Airport. Farther south, thousands of customers were left without power as ice damaged power lines in Pennsylvania, Delaware, New Jersey, New York, Rhode Island, and West Virginia.

More Arctic air surged southward across the eastern two-thirds of the nation during the second week of the month, sending lows down to  $-36^{\circ}\text{F}$  in northern Minnesota and to  $25^{\circ}\text{F}$  as far south as southern Mississippi and northern Florida. Strong winds combined with the very low temperatures to produce dangerous wind chills of less than  $-60^{\circ}\text{F}$  in the upper Mississippi Valley as a half-dozen daily record lows were set across the Midwest. Moist southerly flow ahead of the Arctic blast brought locally heavy rains from the southeastern Plains eastward to the South Atlantic Coast, heavy snow to the Appalachians, and a mixture of snow, sleet, rain, and freezing rain to the mid-Atlantic and Northeast. In sharp contrast, unseasonably mild weather prevailed across the Northwest and the northern and central Rockies, where temperatures soared into the fifties and sixties.

Shortly after mid-month, one of the coldest Arctic outbreaks on record swept into the central and eastern United States, bringing all-time record lows to more than a dozen cities in the upper Ohio Valley, the lower Great Lakes, the central Appalachians, and eastern Pennsylvania (page 12). In addition, several cities from the Great Lakes to the mid-Atlantic reported the lowest daily maximum on record, and unofficial reports indicated that new statewide record lows were established in Indiana ( $-36^{\circ}\text{F}$ ) and Michigan ( $-52^{\circ}\text{F}$ ). Strong winds accompanying the cold conditions generated dangerous wind chills ranging from  $-25^{\circ}\text{F}$  in the Atlanta, GA area to  $-83^{\circ}\text{F}$  in North Dakota. The record cold, along with wintry precipitation, crippled much of the mid-Atlantic, Northeast, and Southeast, bursting water mains, snarling traffic, canceling flights at many airports, closing schools and businesses, and triggering power outages. A state of emergency was declared in New Jersey, Pennsylvania, and Washington, DC, and at least 130 lives were claimed by the cold spell. In an effort to control energy consumption, the Federal Government closed its Washington, DC area offices on January 20 and shortened workdays on the 19<sup>th</sup> and 21<sup>st</sup>. In sharp contrast, unseasonably mild weather prevailed across the West, where over three dozen daily record highs were set.

In the final full week of the month, a massive storm system spread severe weather and torrential rain over the lower Mississippi Valley and portions of the Southeast, heavy rain from the Tennessee and Ohio Valleys to the mid-Atlantic and New England, and freezing rain and drizzle from the northern portions of the middle Mississippi Valley to central and western sections of the

mid-Atlantic. Cold air was trapped near the ground across and to the east of the Appalachians, allowing the rain to freeze on contact with cold surfaces, resulting in a thick glaze of ice that closed airports and snarled highway traffic. In addition, heavy rains accompanied by rapid snowmelt and ice jamming engendered serious stream and river flooding from the Midwest to southern New England.

According to the River Forecast Centers, over four inches of precipitation soaked the Pacific Coast from San Francisco northward to British Columbia, and the eastern half of the nation from the Ohio Valley and the Ozarks eastward to the Atlantic Seaboard. Totals of eight to twelve inches were measured along the lower Mississippi Valley, the southern Appalachians, and northern Florida (page 8). In addition, up to twelve inches of precipitation were reported in southern and southeastern Alaska. Based on preliminary calculations from the National Climatic Data Center (NCDC), the four easternmost regions reported above median precipitation (page 9). Of the 48 contiguous states, 29 measured above normal totals, with Connecticut and New Jersey experiencing the 6<sup>th</sup> and 9<sup>th</sup> wettest January, respectively, since 1895.

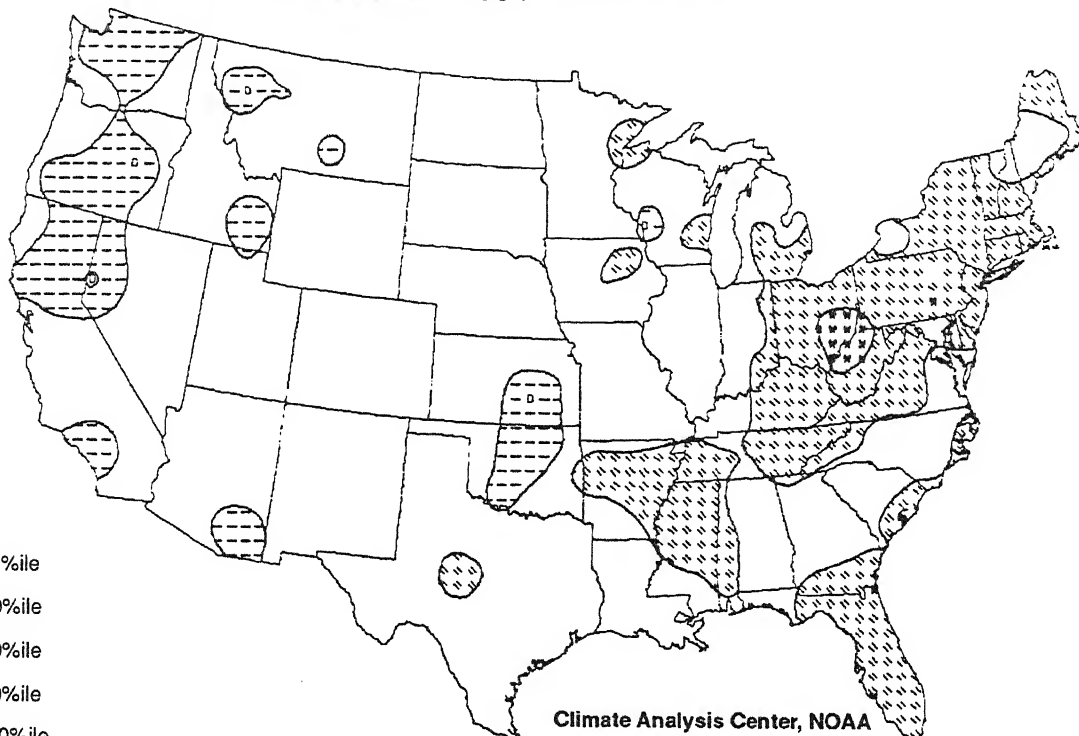
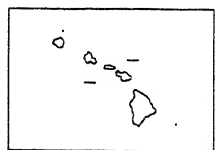
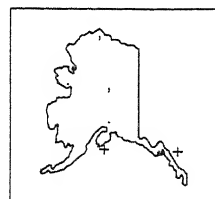
Most of the West and the central Plains observed below normal precipitation, with large areas of the Great Basin and Intermountain West receiving less than half the normal January amount (page 8). In addition, most of the Hawaiian Islands were drier than normal. The westernmost five NCDC regions reported submedian January totals, with the Southwest and the Northwest ranking 3<sup>rd</sup> and 6<sup>th</sup>, respectively, in 100 years of record (page 9). Utah and Arizona both experienced the 4<sup>th</sup> driest such month while January in four other states (Oregon, Idaho, Nevada, and Colorado) was among the ten driest since records began in 1895. Across the nation as a whole, the extensive areas of below normal precipitation across the West helped yield the 19<sup>th</sup> driest January in 100 years of record.

Abnormally cold conditions dominated the nation from the Great Plains eastward to the Atlantic Coast, with temperature averaging  $6^{\circ}\text{F}$  to  $12^{\circ}\text{F}$  below normal across the north-central and northeastern states (page 10). A large Arctic air mass engendered number of all-time record lows and nearly two dozen January low around January 19–21 (page 12). The five easternmost of the nine NCDC regions experienced submedian January temperatures, with the Northeast and the East North-Central enduring the 3<sup>rd</sup> and 7<sup>th</sup> coldest January, respectively, in the 100-year historical distribution. Three-fourths of the 48 contiguous states reported submedian January mean temperatures. Maine and New York had the coldest January since records began in 1895, and thirteen north-central and northeastern states were ranked among the ten coldest such months on record (page 11). Nationally, January 1994 was the 33<sup>rd</sup> coldest such month on record as a result of the extensive area dominated by Arctic air for prolonged periods of time.

In sharp contrast, unseasonably mild weather dominated the West and the southern Plains, with departures of  $+6^{\circ}\text{F}$  to  $+12^{\circ}\text{F}$  widespread across the northern Rockies and the interior Pacific Northwest (page 10). In addition, most of Alaska reported above normal readings during January 1994. The four westernmost of the nine NCDC regions reported above-median monthly mean temperatures for January, with the Northwest experiencing the 2<sup>nd</sup> warmest such month in 100 years (page 11). Only 12 of the 48 contiguous states observed above median temperatures, with Washington and Idaho ranking as the 2<sup>nd</sup> warmest and Oregon the warmest such month on record.

# PRECIPITATION PERCENTILES

JANUARY 1994



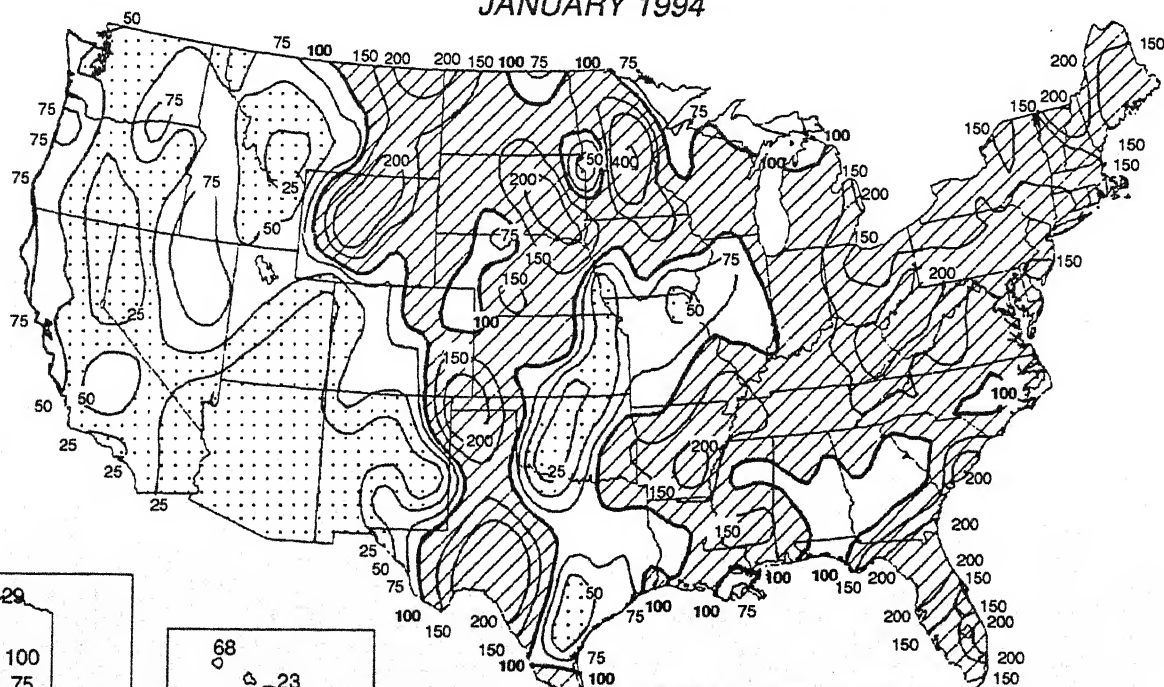
Climate Analysis Center, NOAA

- D less than 10%ile
- 10%ile to 30%ile
- . 30%ile to 70%ile
- + 70%ile to 90%ile
- W more than 90%ile

**JANUARY 1994 PRECIPITATION PERCENTILES**, as computed by the Climate Analysis Center. A relatively wet month (>70%ile) was observed across much of the East and the Southeast, with totals among the wettest 10% of the historical (1961 - 1990) distribution in northwestern West Virginia and southeastern Ohio. Climatologically significant dryness (<30%ile) prevailed across much of the West and in scattered portions of the Rockies and central Plains.

# PERCENT OF NORMAL PRECIPITATION

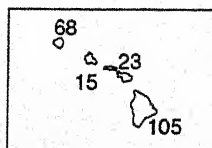
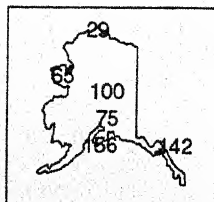
JANUARY 1994



Climate Analysis Center, NOAA

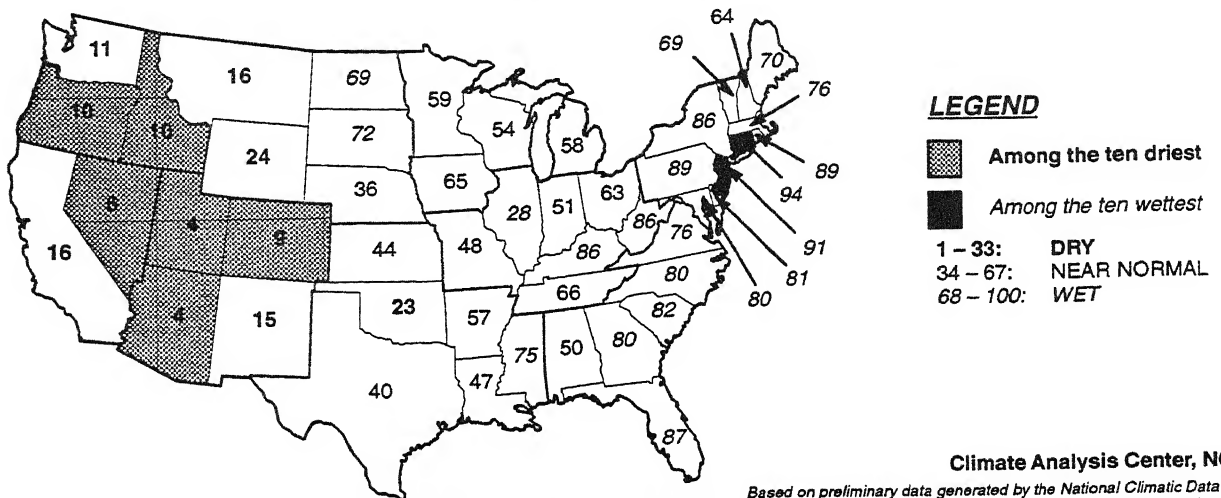
Computer generated isopleths

Based on preliminary data

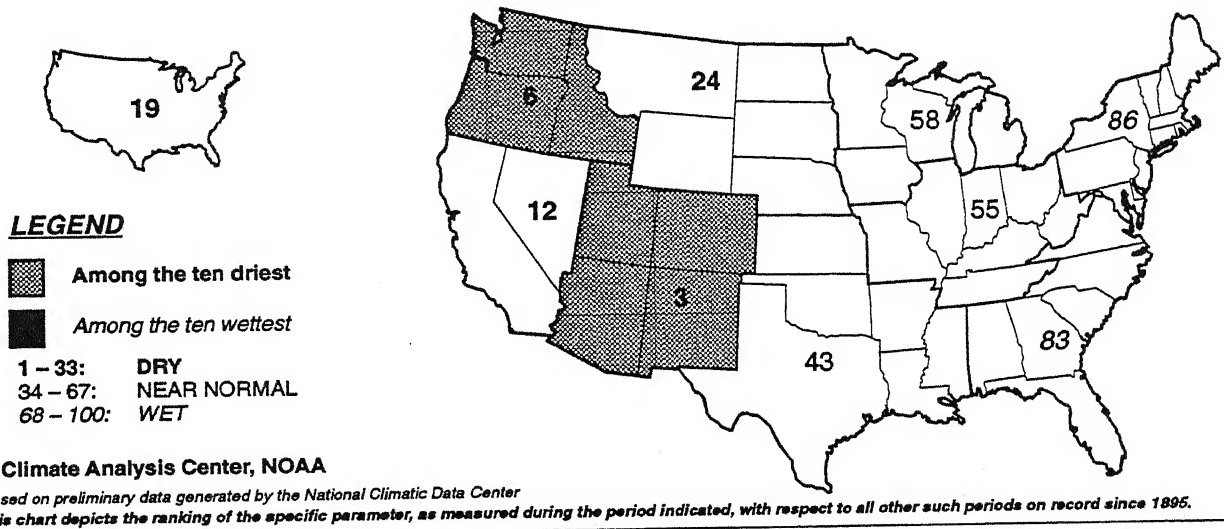


**JANUARY 1994 PERCENT OF NORMAL PRECIPITATION.** Hatched areas received above normal precipitation, and dotted areas reported under half of normal. Above normal precipitation fell on most of the nation from the Rockies eastward to the Atlantic Coast, except for parts of the eastern Plains and Corn Belt. In contrast, abnormally dry weather prevailed across the West.

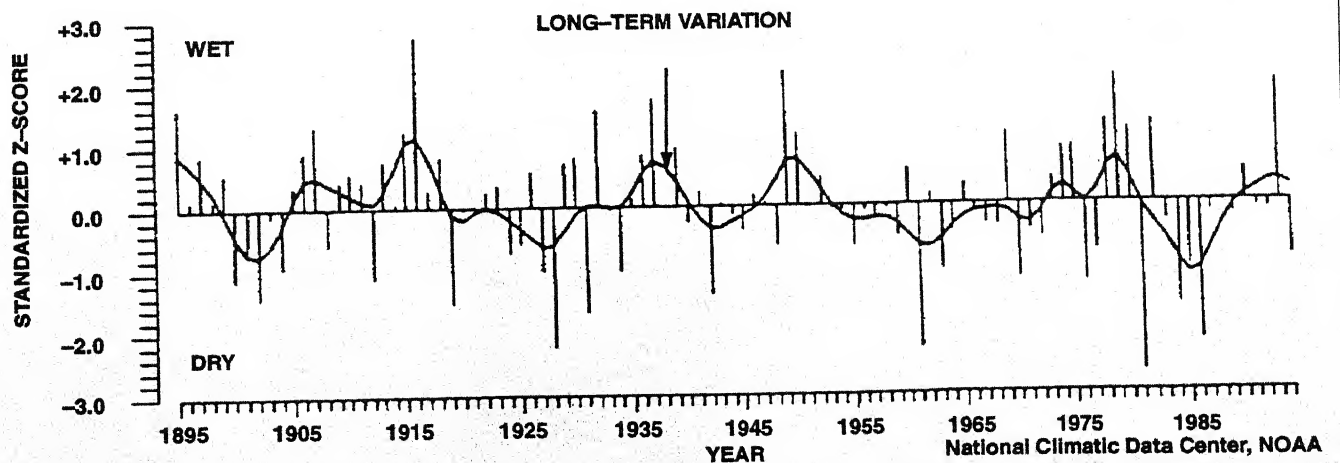
## HISTORICAL PRECIPITATION RANKINGS BY STATE JANUARY 1994



## HISTORICAL PRECIPITATION RANKINGS BY REGION AND NATION JANUARY 1994



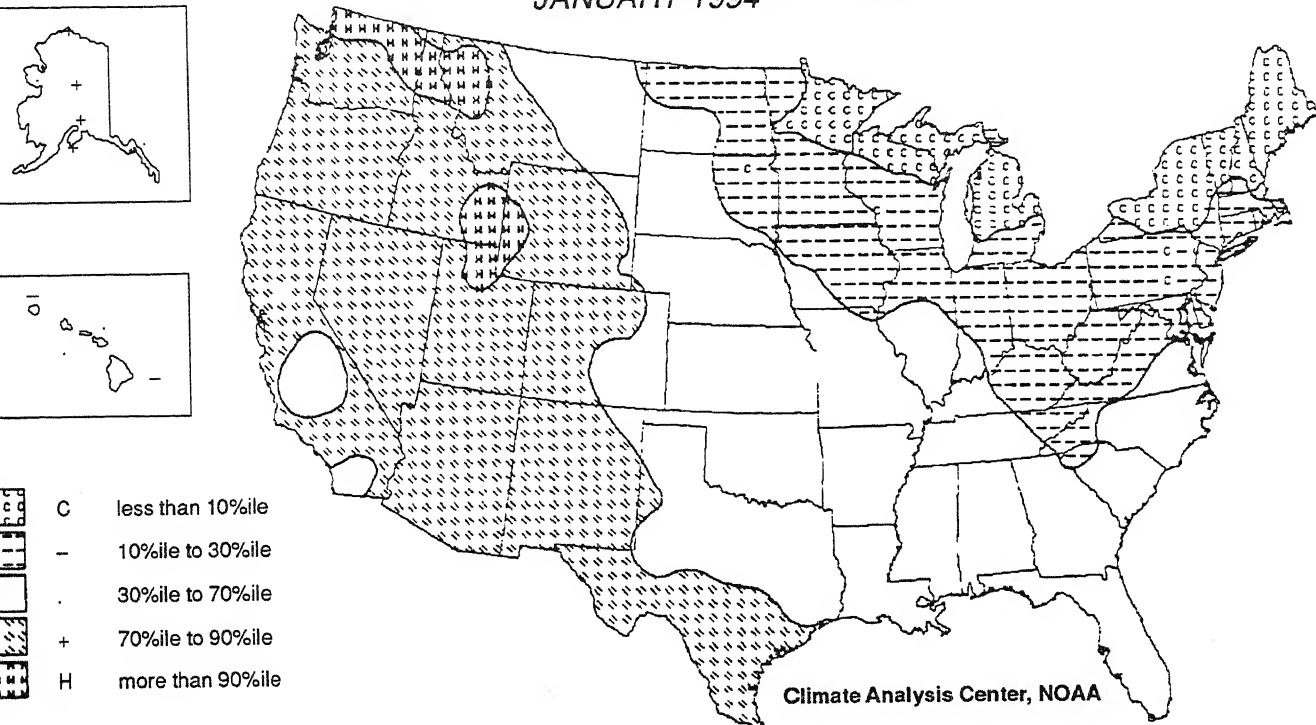
## U. S. NATIONAL NORMALIZED PRECIPITATION INDEX JANUARY 1895 - 1994



NATIONAL MEAN JANUARY 1895-1994 PRECIPITATION INDEX, as computed by the National Climatic Data Center. January 1994 was the 19<sup>th</sup> driest such month on record. This index takes local normals into account so that regions with large precipitation amounts do not dominate the index value.

# TEMPERATURE PERCENTILES

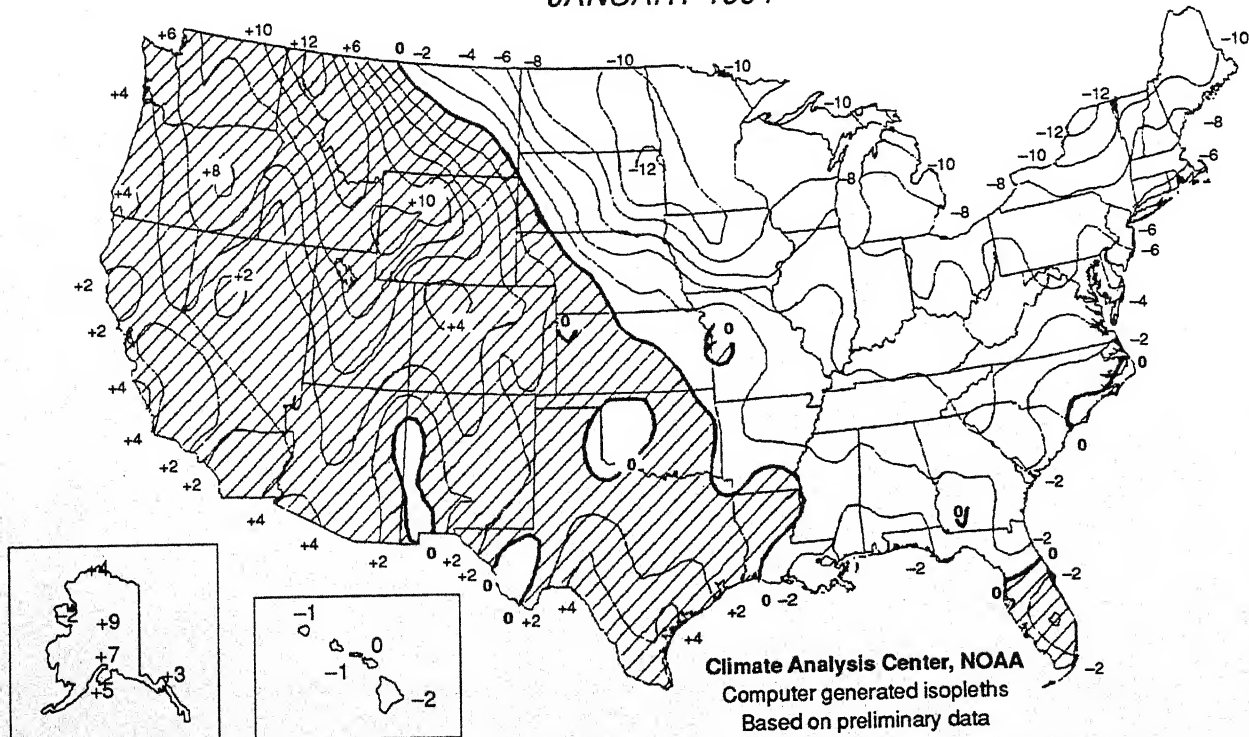
JANUARY 1994



**JANUARY 1994 TEMPERATURE PERCENTILES**, as computed by the Climate Analysis Center. Abnormally cold conditions (<30%ile) dominated the north-central and northeastern states, with temperatures among the lowest 10% of the historical (1961 – 1990) distribution across much of the Great Lakes, New York, and New England. In sharp contrast, unseasonably mild weather (>70%ile) prevailed across the West and the Rio Grande Valley, with portions of the northern and central Rockies reporting monthly mean temperatures among the warmest 10% of the distribution.

## DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)

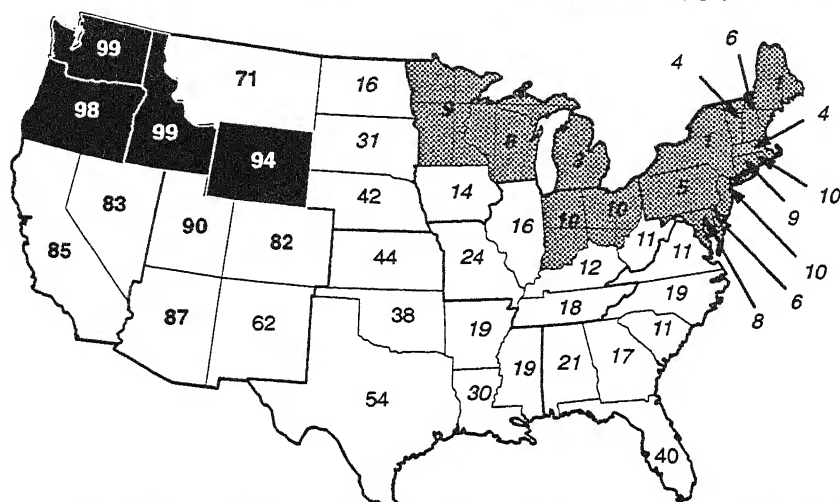
JANUARY 1994



**JANUARY 1994 DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)**. Shaded areas experienced above normal temperatures. Colder than normal conditions dominated the eastern half of the nation from the northern High Plains and lower Mississippi Valley to the Atlantic Seaboard, with departures as low as -12°F in northeastern South Dakota and northern upstate New York. In sharp contrast, unusually mild conditions prevailed across peninsular Florida, the southern Plains, and the West. Readings averaged as much as 12°F above normal in the northern Rockies.



## HISTORICAL TEMPERATURE RANKINGS BY STATE JANUARY 1994



### LEGEND

- Among the ten coldest
- Among the ten warmest
- 1 - 33: COLD
- 34 - 67: NEAR NORMAL
- 68 - 100: WARM

Climate Analysis Center, NOAA

Based on preliminary data generated by the National Climatic Data Center  
This chart depicts the ranking of the specific parameter, as measured during the period indicated, with respect to all other such periods on record since 1895.

## HISTORICAL TEMPERATURE RANKINGS BY REGION AND NATION JANUARY 1994



### LEGEND

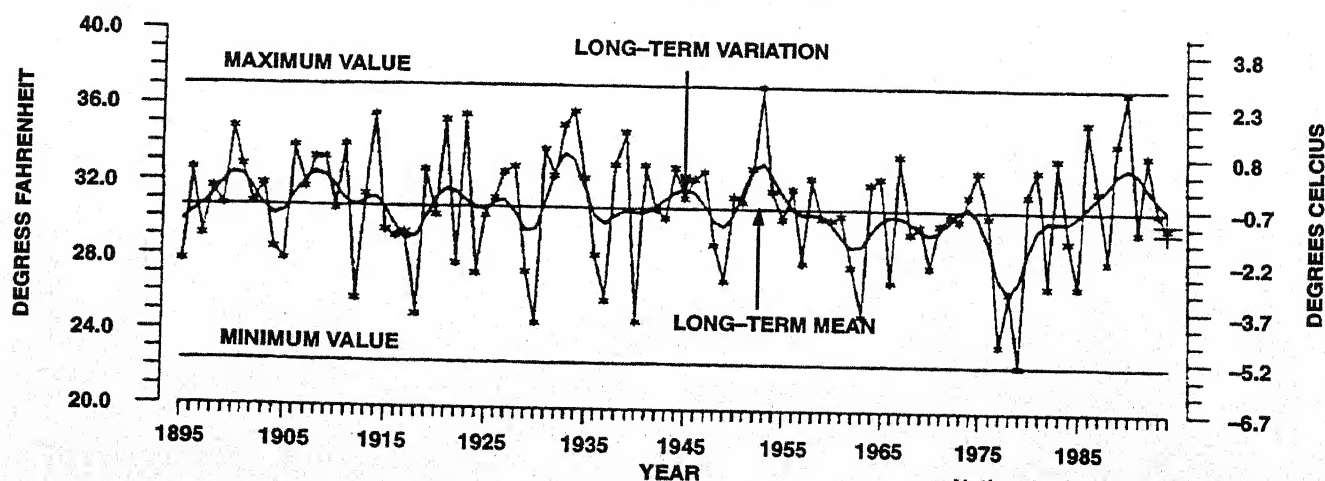
- Among the ten coldest
- Among the ten warmest
- 1 - 33: COLD
- 34 - 67: NEAR NORMAL
- 68 - 100: WARM

Climate Analysis Center, NOAA

Based on preliminary data generated by the National Climatic Data Center

This chart depicts the ranking of the specific parameter, as measured during the period indicated, with respect to all other such periods on record since 1895.

## U. S. NATIONAL TEMPERATURE JANUARY 1895 - 1994



National Climatic Data Center, NOAA

NATIONALLY AVERAGED JANUARY 1895-1994 TEMPERATURES, as computed by the National Climatic Data Center. January 1994 was the 33<sup>rd</sup> coldest such month on record, with the index dominated by the extensive area of submedian temperatures across the north-central and eastern states.



**TABLE 1. RECORD JANUARY PRECIPITATION**

| STATION       | TOTAL<br>(IN) | NORMAL<br>(IN) | PCT. OF<br>NORMAL | RECORD<br>TYPE | RECORDS<br>BEGAN |
|---------------|---------------|----------------|-------------------|----------------|------------------|
| ST. CLOUD, MN | 3.10          | 0.74           | 418.9             | HIGHEST        | 1893             |
| DEL RIO, TX   | 2.36          | *****          | *****             | HIGHEST        | 1963             |
| YUMA, AZ      | T             | 0.35           | 0.0               | LOWEST         | 1949             |

NOTE: Trace (T) precipitation is considered ZERO precipitation. Stations with no precipitation are only included if normal precipitation is 0.25 inches or more.  
\*\*\*\*\* - Normals not available.

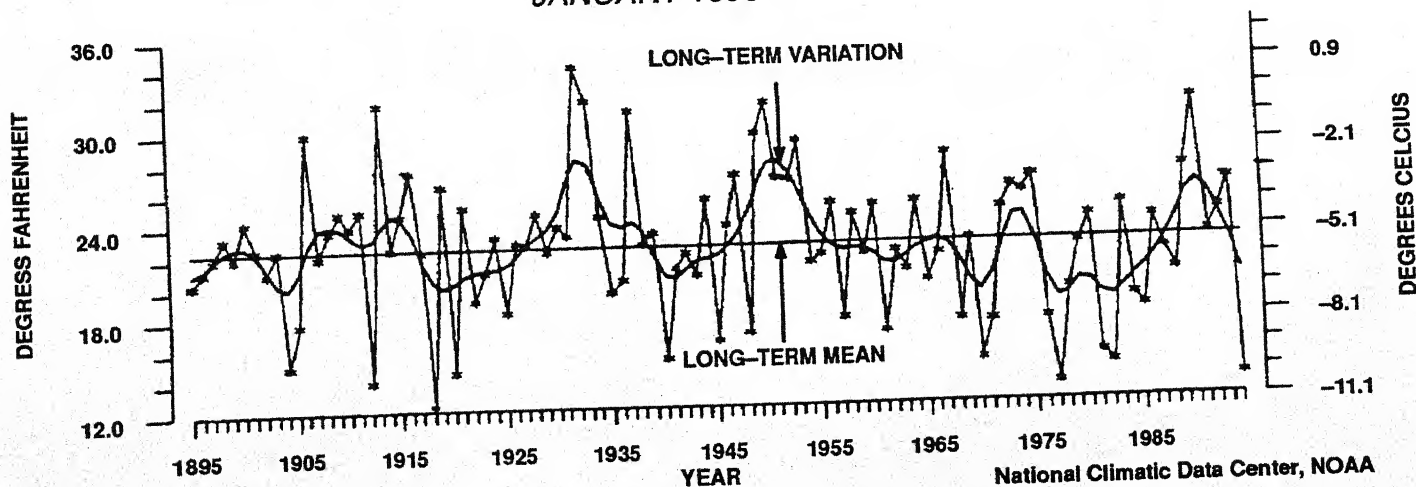
**TABLE 2. RECORD JANUARY AVERAGE TEMPERATURES**

| STATION            | DEPARTURE<br>(°F) | AVERAGE<br>(°F) | NORMAL<br>(°F) | RECORD<br>TYPE | RECORDS<br>BEGAN |
|--------------------|-------------------|-----------------|----------------|----------------|------------------|
| SEATTLE-TACOMA, WA | +4.9              | 45.0            | 40.1           | HIGHEST        | 1947             |
| ROCHESTER, NY      | -8.6              | 14.9            | 23.5           | LOWEST         | 1951             |
| SYRACUSE, NY       | -9.8              | 12.7            | 22.5           | LOWEST         | 1951             |
| CARIBOU, ME        | -9.8              | -0.8            | 9.0            | LOWEST         | 1947             |

**TABLE 3. RECORD JANUARY EXTREME TEMPERATURES**

| STATION                   | EXTREME<br>(°F) | DATE<br>OCCURRED | RECORD<br>TYPE  | RECORDS<br>BEGAN |
|---------------------------|-----------------|------------------|-----------------|------------------|
| ALBUQUERQUE, NM           | 69              | January 5        | HIGHEST         | 1940             |
| NEW YORK, NY              | -3              | January 19       | LOWEST          | 1941             |
| HARRISBURG, PA            | -15             | January 21       | ALL-TIME LOWEST | 1912             |
| ALLENTOWN, PA             | -15             | January 21       | ALL-TIME LOWEST | 1944             |
| CHARLESTON, WV            | -16             | January 19       | LOWEST          | 1948             |
| ROCHESTER, NY             | -17             | January 16       | LOWEST          | 1941             |
| ERIE, PA                  | -18             | January 19       | ALL-TIME LOWEST | 1953             |
| CLEVELAND, OH             | -20             | January 19       | ALL-TIME LOWEST | 1941             |
| WILKES-BARRE/SCRANTON, PA | -21             | January 21       | ALL-TIME LOWEST | 1901             |
| HUNTINGTON, WV            | -21             | January 19       | LOWEST          | 1962             |
| YOUNGSTOWN, OH            | -22             | January 19       | ALL-TIME LOWEST | 1943             |
| COLUMBUS, OH              | -22             | January 19       | ALL-TIME LOWEST | 1939             |
| GRAND RAPIDS, MI          | -22             | January 19       | ALL-TIME LOWEST | 1964             |
| LOUISVILLE, KY            | -22             | January 19       | LOWEST          | 1945             |
| PITTSBURGH, PA            | -22             | January 19       | ALL-TIME LOWEST | 1953             |
| PARKERSBURG, WV           | -24             | January 19       | LOWEST          | 1888             |
| AKRON-CANTON, OH          | -25             | January 19       | ALL-TIME LOWEST | 1949             |
| CLARKSBURG, WV            | -25             | January 19       | ALL-TIME LOWEST | 1934             |
| DAYTON, OH                | -25             | January 19       | LOWEST          | 1944             |
| INDIANAPOLIS, IN          | -27             | January 19       | LOWEST          | 1931             |
| MARQUETTE, MI             | -27             | January 19       | LOWEST          | 1979             |
| ALPENA, MI                | -28             | January 16       | LOWEST          | 1960             |
| CARIBOU, ME               | -32             | January 26       | LOWEST          | 1939             |
| WATERLOO, IA              | -33             | January 20       | LOWEST          | 1949             |

**NORTHEAST REGION TEMPERATURE  
JANUARY 1895 - 1994**



**NORTHEAST REGION JANUARY 1895-1994 TEMPERATURES**, as computed by the National Climatic Data Center. January 1994 was the 3<sup>rd</sup> coldest January in 100 years, the coldest since 1977, and the first such month with submedian temperatures since 1988 across the Northeast.

